

Model **ZOCEIM** Electrical Input Module

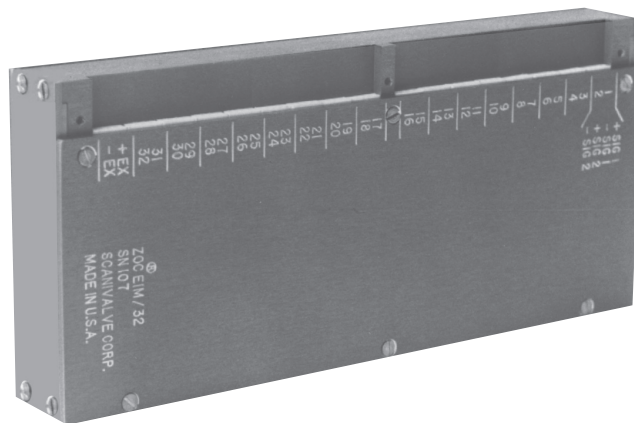
Scanivalve Corp.



Data Sheet No. G466

Features

- Scans 16 or 32 electrical channels
- Scans electrical signals at 20kHz
- Compatible with all ZOC, DSM and E-RAD series components and systems



*ZOCEIM
Electrical Input Module*

General Description

The ZOCEIM is designed to multiplex and amplify up to 16 or 32 differential analog inputs. The analog input signals go directly to the 4 eight channel multiplexers. The outputs from these multiplexers are bussed together and then fed directly into an instrument amplifier. The amplifier selectable gain is factory set at 1, 10, 100, or 1000 but can be user set in the field. The multiplexed signal is selected by a 4 or 5 bit binary CMOS level address. The ZOCEIM can be multiplexed up to 20kHz and is available in 2 versions: 16 channel or 32 channel cable serviced units.

The ZOCEIM is similar to our cable serviced ZOC pressure scanners, in that it utilizes the same 15 pin electrical connector. It accepts input signals from signal conditioned thermocouples, RTD, strain gages, or individual transducers for pressure, rpm, etc. It may be mixed with other ZOC pressure scanning modules within a system.

Application

The ZOCEIM is designed to be used in the confined space in wind tunnel models. It is small in size and comes with a mounting bracket that makes it easy to install.

The ZOCEIM is designed to be used in conjunction with our Ethernet based DSM3400 or E-RAD4000 series data systems. When customers choose to use their "in-house" data system instead of one of Scanivalve's data acquisition systems, they will need to supply the $\pm 15\text{Vdc}$ power as well as the CMOS level binary address.

Optional Features

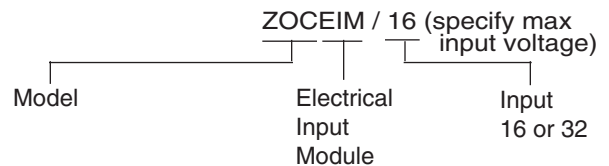
An additional circuit may be factory installed to provide an excitation voltage for strain gages, RTD's, or pressure transducers. This feature is only available on 32 channel ZOCEIM. In addition, this circuit will provide a stable +5 Vdc at 50mA. Optional excitation voltages of 7 and 10 volts are available on special order. The user may also specify non-standard gains.

Specifications

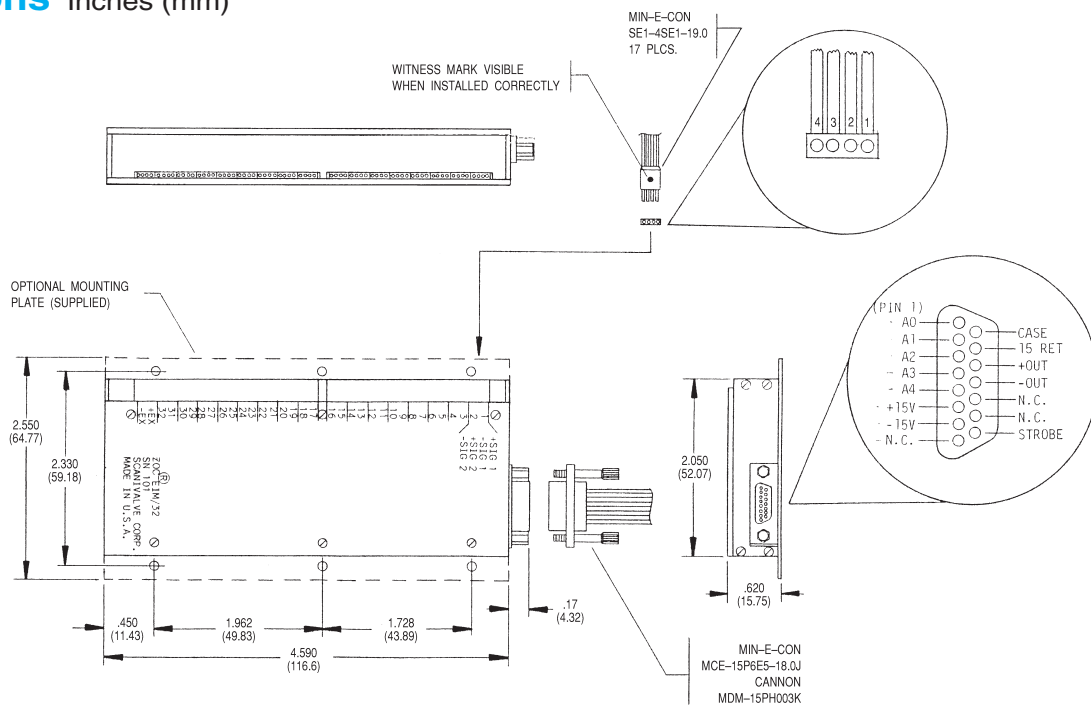
Inputs:	16 or 32												
Input Signals:	$\pm 20\text{mV}$ up to $\pm 10\text{Vdc}$ differential												
Output Signal:	Nominal $\pm 2.5\text{Vdc}$ Maximum $\pm 10\text{Vdc}$ (only available with customer (A/D))												
Channel Addressing:	4 or 5 bit binary, CMOS level												
Scan Rate:	20kHz standalone 625Hz/channel/sec. when used with DSM or ERAD4000												
Operating Temperature:	0° to 70°C												
Maximum Storage Temperature:	85°C												
Gain Settings:	Specified at time of order* <table> <tr> <td>1</td> <td>$\pm 0.03\%$</td> <td>5 ppm/$^\circ\text{C}$</td> </tr> <tr> <td>10</td> <td>$\pm 0.15\%$</td> <td>10 ppm/$^\circ\text{C}$</td> </tr> <tr> <td>100</td> <td>$\pm 0.35\%$</td> <td>25 ppm/$^\circ\text{C}$</td> </tr> <tr> <td>1000</td> <td>$\pm 1.00\%$</td> <td>50 ppm/$^\circ\text{C}$</td> </tr> </table>	1	$\pm 0.03\%$	5 ppm/ $^\circ\text{C}$	10	$\pm 0.15\%$	10 ppm/ $^\circ\text{C}$	100	$\pm 0.35\%$	25 ppm/ $^\circ\text{C}$	1000	$\pm 1.00\%$	50 ppm/ $^\circ\text{C}$
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Resolution:	.005% FS
Non-Linearity:	.003% FS
Input Offset Voltage:	$50\mu\text{V}$ referred to input
Excitation Circuit: (Ground Referenced)	Standard $+5\text{Vdc}$ @ 50mA Max. Optional 7Vdc , 10Vdc
Power Requirements:	$+15\text{Vdc}$ @ 100mA -15Vdc @ 50mA
Common Mode Rejection:	$\pm 10\text{Vdc}$ greater than 100dB
Over Voltage:	30 volts peak to peak

Ordering Information



Dimensions Inches (mm)



Scanivalve Headquarters
 1722 N. Madson Street
 Liberty Lake, WA 99019
 Tel: 509-891-9970
 800-935-5151
 Fax: 509-891-9481
 e-mail: scanco@scanivalve.com

Scanivalve Corp.

www.scanivalve.com

